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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,834

10/11/2006

Erwin Rinaldo Meinders

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

MULVANEY, ELIZABETH EVANS

ART UNIT

PAPER NUMBER

1794

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,834	<b>Applicant(s)</b> MEINDERS ET AL.	
	<b>Examiner</b> Elizabeth E. Mulvaney	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/9/07</u> .                                                 | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,051,340.

The reference discloses the method of manufacturing an optical recording medium using a stamper produced by etching a phase-change material on a substrate. The phase change material may be Te, Sb, Ge, Sn In, etc. and combinations of these elements. See col. 4. The layer may be formed in the claimed thickness range. See col. 4. The phase change material is exposed in a pattern (to form pits and grooves), developed with an alkali, nickel-plated, and formed into a stamper. See Examples.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,051,340.

The reference discloses the method of manufacturing an optical recording medium using a stamper produced by etching a phase-change material on a substrate. The phase change material may be Te, Sb, Ge, Sn In, etc. and combinations of these elements. See col. 4. The layer may be formed in the claimed thickness range. See col. 4. The layer may be formed of Sn-Ge-Sb. See Example 6. It is recognized that the specific formula for the alloy is not given. However, it would have been obvious to one of ordinary skill in the art to vary the amounts of the elements in the alloy to provide the optimal recording results.

Claims 5, 8-11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,051,340 in view of US 6,030,556.

The '340 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not specify an interface layer or protective layer on either side of the phase-change mask layer. However, the '556 reference shows that it is known to provide a dielectric and cap layer on either side of the mask layer when forming a stamper. The layers are of the same thickness as claimed. See col. 7-8. Therefore, it would have been obvious to one of ordinary skill in the art to include these layers in the '340 medium. One would be motivated by the reasoned expectation of obtaining the improved recording properties.

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,051,340 in view of US 4,732,844.

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The '340 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not disclose an interface comprising a AZO material. However, the '844 reference shows that including a AZO interface layer is known. See col. 4, l 26. Therefore, it would have been obvious to one of ordinary skill in the art to include such an interface layer in the '340 medium. One would be motivated by the reasoned expectation of obtaining a resist sensitive to the specific wavelengths of light disclosed in the '844 reference.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,051,340 in view of JP 06-060440.

The '340 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not disclose a protective layer formed of PMMA. However, the '440 reference disclose the use of protective layers with phase-change mask layers which may be formed of PMMA. See [0010]. Therefore, it would have been obvious to one of ordinary skill in the art to include such a layer for the protective properties provided.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,051,340 in view of US 6,709,801.

The '340 reference discloses the master/stamper and method of manufacturing as described in the above 102 rejection. It is recognized that the reference does not disclose a heat sink layer on the side of the mask layer opposite the exposure light. However, the '801 reference

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shows that it is well-known to employ a heat sink layer when recording with phase-change materials. See col. 22 for materials and thickness. Therefore, it would have been obvious to one of ordinary skill in the art to include a heat sink layer in the '340 medium. One would be motivated by the reasoned expectation of obtaining the improved sensitivity disclosed in the '801 reference.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/599,834. Although the conflicting claims are not identical, they are not patentably distinct from each other because they cover the same master and method for making a master comprising

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a substrate, interlayer, mask, protective layer where the mask layer is a phase-change materials and the master is formed by exposing the mask material, developing, ni-plating and separating.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth E. Mulvaney whose telephone number is 571-272-1527. The examiner can normally be reached on Monday-Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Ruthkosky can be reached on 571-272-1291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth E. Mulvaney/

Primary Examiner, Art Unit 1794